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Joseph DiBella
Regulatory Counsel

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EX PARTE

August 24, 2001

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
4445 12th Street, SW, Room TW-A325
Washington, DC 20554

**Re: CC Docket No. 01-140; Bell Atlantic Telephone Companies Revisions in
Tariff FCC Nos. 1 and 11, Transmittal Nos. 1373 and 1374; Verizon Telephone
Companies Tariff FCC Nos. 1 and 11, Transmittal Nos. 23 and 24.**

Dear Ms. Salas:

Verizon hereby submits additional information in support of its Direct Case in the above-referenced proceeding. As requested by the bureau in the *Designation Order*,¹ Verizon has developed alternative calculations of the land and building investment factors and the depreciation factors. In addition, Verizon has performed a cumulative analysis of the combined effect of the various alternative methodologies on investments and rates. This cumulative analysis resulted in *higher* rates for DC power in many states. This provides further evidence that Verizon's rates are just and reasonable.

In response to paragraph 38 of the *Designation Order*, Verizon recalculated its land and building investment factors to remove costs associated with central offices that lack collocation. See

¹ *Bell Atlantic Telephone Companies*, CC Docket No. 01-140, DA 01-1525, Order Designating Issues for Investigation (rel. June 26, 2001) ("*Designation Order*").

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Attachment 1. This caused the land and building factors to increase in some states and to decrease in others. Also, as required by paragraph 38, Verizon recalculated the monthly region-specific DC power rates incorporating the changes in the land and building factors. As a result, the rates for power changed as follows; the Verizon North rate increased to \$16.58 from \$16.41; the Verizon New York rate increased to \$25.80 from \$25.32; and the Verizon South rate decreased to \$20.10 from \$20.23.

In response to paragraphs 50, 51, and 52, Verizon recalculated the switching depreciation annual cost factors based on the expected lives of the following hardware items; microprocessor (BUSS BAR), rectifier, battery, automatic breaker, power distribution service cabinet, emergency engines/turbine, battery distribution fuse bay, and power plant distribution bay. See Attachment 3. These recalculations resulted in the following changes in the DC power rates;

	<u>Filed Rates</u>	<u>Para. 50²</u>	<u>Para. 51³</u>	<u>Para. 52⁴</u>
Verizon South	\$20.23	\$19.63	\$19.13	\$19.12
Verizon New York	\$25.32	\$24.50	\$23.84	\$23.83
Verizon North	\$16.41	\$15.59	\$15.16	\$15.16

While all of these changes resulted in reductions, they cannot be isolated from similar changes to the method of calculating the engineering, furnished and installed factor in paragraphs 33 and 34, which resulted in increases in the DC power rates.

In response to paragraph 58, Verizon performed a cumulative analysis of its unit investments and DC power rates after taking into account the following changes to its methodology; (1) removal of the costs of offices that lack collocation from the calculation of unit investments (para. 28); (2) recalculation of the engineering, furnished and installed factor to exclude offices that lack collocation (para. 34); (3) recalculation of land and building investment factors to exclude offices that lack collocation (para. 38); (4) elimination of a small amount of "double recovery" of land and building costs noted in Exhibit E, note 1 of the Direct Case (para. 40); (5) calculation of the switching depreciation annual cost factor based on the weighted average of the expected lives of certain equipment items (para. 51); and (6) use of current overhead loading factors (para. 54). See Attachment 3. This resulted in the following DC power rates;

² See Attachment 2, Tab 1.

³ See Attachment 2, Tab 2.

⁴ See Attachment 2, Tab 3.

	<u>Filed Rates</u>	<u>Cumulative Analysis Rates</u>
Verizon South	\$20.23	\$20.19
Verizon New York	\$25.32	\$19.33
Verizon North	\$16.41	\$23.01

These cumulative changes are related primarily to replacement of the Commission-prescribed overhead loading factor in the *Physical Collocation Tariff Order*⁵ with an overhead loading factor based on a comparison of current special access prices and costs. The voluminous data that Verizon produced in this investigation at the bureau's request demonstrate that the alternative costing methodologies described in the *Designation Order* produce insignificant changes in the DC power rates. The only real question in this investigation is whether the Commission will change its prior prescription and require rates for expanded interconnection to incorporate current overhead loading factors.

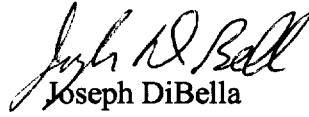
This ex parte filing provides substantially all of the remaining information on alternative methodologies that the bureau requested in the *Designation Order*. The only items that Verizon has not yet supplied are (1) the alternative methodology for calculating the land and building factor described in para. 41; and (2) the description of each installation job and the actual bills for each job as discussed in paragraph 31. Completion of the calculation in paragraph 41, which would require a physical measurement of the space in each central office that is occupied by power-related equipment, cannot be accomplished within the time period contemplated for this investigation. Even using only a statistically-valid sample of central offices would require measurement of close to 400 central offices, which would take several months. Pulling individual installation job bills for paragraph 31 is a manual process that will take several more weeks.

At this point, Verizon has already produced approximately 5700 pages of information in this investigation, far more than is typically required in a single tariff investigation. Verizon has produced more than enough information to demonstrate the reasonableness of its DC power rates. Verizon's rates, whether as filed or as modified using the bureau's alternative

⁵ See *Local Exchange Carriers' Rates, Terms and Conditions for Expanded Interconnection Through Physical Collocation for Special Access and Switched Transport*, 12 FCC Rcd 18730, Appendix D (1997).

methodologies, are well within the range of the state collocation DC power rates reviewed and approved by the relevant state regulatory commissions. No party has demonstrated that these rates are unreasonable.

Sincerely,



Joseph DiBella

Attachments

ATTACHMENT 1

VERIZON RESPONSE TO PARAGRAPH 38

Confidential Material Redacted for Public Inspection

COMPARISON OF RATES AND FACTORS FOR PARAGRAPH 38
8/21/01

	FCC South	FCC New York	FCC New England
Current	\$20.23	\$25.32	\$16.41
Paragraph 38	\$20.10	\$25.80	\$16.58

		DC	DE	MD	NJ	PA	VA	WV
Current South	Land and Building Factor	0.1614	0.2088	0.1548	0.1793	0.1838	0.1353	0.2292
38 South	Land and Building Factor	0.3899	0.1611	0.1453	0.1340	0.1777	0.1606	0.1853

		NY
Current NY	Land and Building Factor	0.2140
38 NY	Land and Building Factor	0.2388

		MA	ME	NH	RI	VT
Current NE	Land and Building Factor	0.1835	0.1167	0.1357	0.1845	0.1256
38 NE	Land and Building Factor	0.2047	0.1266	0.0895	0.2051	0.1608

VERIZON EAST - LAND & BUILDING FACTORS

STATE	LAND INVESTMENT	BUILDING INVESTMENT	LEASE INVESTMENT	TOTAL (A + B + C)	LAND RATIO A / (SUM A,B)	BUILDING RATIO B / (SUM A,B)	COE INVESTMENT	L&B FACTOR (D / G)	LAND FACTOR (E X H)	BUILDING FACTOR (F X H)
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
DC	\$ 4,211,963	\$ 92,341,922	\$ -	\$ 96,553,885	0.0436	0.9564	\$ 247,643,732	0.3899	0.0170	0.3729
DE	\$ 1,204,246	\$ 29,748,739	\$ -	\$ 30,952,985	0.0389	0.9611	\$ 192,193,220	0.1611	0.0063	0.1548
MA	\$ 2,894,446	\$ 107,824,580	\$ -	\$ 110,719,026	0.0261	0.9739	\$ 540,779,264	0.2047	0.0054	0.1993
MD	\$ 3,871,529	\$ 96,689,542	\$ 106,008	\$ 100,667,079	0.0385	0.9615	\$ 692,906,133	0.1453	0.0056	0.1397
ME	\$ 262,432	\$ 15,185,898	\$ -	\$ 15,448,331	0.0170	0.9830	\$ 121,989,224	0.1266	0.0022	0.1244
NH	\$ 380,318	\$ 14,911,114	\$ 344,515	\$ 15,635,947	0.0249	0.9751	\$ 174,741,598	0.0895	0.0022	0.0873
NJ	\$ 4,130,724	\$ 106,882,933	\$ -	\$ 111,013,657	0.0372	0.9628	\$ 828,613,294	0.1340	0.0050	0.1290
NY	\$ 3,815,789	\$ 232,923,327	\$ 21,354,410	\$ 258,093,526	0.0161	0.9839	\$ 1,080,635,531	0.2388	0.0038	0.2350
PA	\$ 3,431,403	\$ 106,742,869	\$ -	\$ 110,174,272	0.0311	0.9689	\$ 620,021,180	0.1777	0.0055	0.1722
RI	\$ 882,652	\$ 46,417,850	\$ -	\$ 47,300,502	0.0187	0.9813	\$ 230,630,033	0.2051	0.0038	0.2013
VA	\$ 1,860,655	\$ 79,165,224	\$ -	\$ 81,025,879	0.0230	0.9770	\$ 504,391,061	0.1606	0.0037	0.1569
VT	\$ 411,494	\$ 13,880,437	\$ -	\$ 14,291,931	0.0288	0.9712	\$ 88,869,365	0.1608	0.0046	0.1562
WV	\$ 877,995	\$ 44,947,470	\$ -	\$ 45,825,465	0.0192	0.9808	\$ 247,336,576	0.1853	0.0036	0.1817

ATTACHMENT 1

Verizon Land & Building Investments

Confidential Material Redacted

ATTACHMENT 1

Verizon Central Office Equipment Investments

Confidential Material Redacted

PHYSICAL COLLOCATION
Bell Atlantic - New England
FCC - 11
21-Aug-01

DC POWER - WEIGHTED SUMMARY
BASED ON THE AVERAGE EXPECTED LIVES OF THE POWER EQUIPMENT
MELDED FOR LESS THAN 60 AMPS AND GREATER THAN 60 AMPS

	<u>A</u>	<u>B</u>	<u>C</u>
	<u>ITEM</u>	<u>SOURCE</u>	<u>BA - NE</u>
1	MONTHLY RATE LESS THAN OR EQUAL TO 60 AMPS	COST STUDY	\$16.57
2	WEIGHTING FACTOR		0.75
3	WEIGHTED MONTHLY RATE LESS THAN OR EQUAL TO 60 AMPS	LINE 1 X LINE 2	\$12.42
4	MONTHLY RATE GREATER THAN OR EQUAL TO 60 AMPS	COST STUDY	\$16.61
5	WEIGHTING FACTOR		0.25
6	WEIGHTED MONTHLY RATE GREATER THAN OR EQUAL TO 60 AMPS	LINE 4 X LINE 5	\$4.15
7	TOTAL SUMMED MONTHLY RATE PER AMP BASED ON THE <u>AVERAGE EXPECTED</u> LIVES OF THE POWER EQUIPMENT	LINE 3 + LINE 6	\$16.58

PHYSICAL COLLOCATION
Bell Atlantic - New England
FCC - 11

DC POWER - COST SUMMARY

<u>LINE NO.</u>	<u>A</u> <u>ITEM</u>	<u>B</u> <u>SOURCE</u>	<u>C</u> <u>MONTHLY</u> <u>RECURRING</u>
	<u>DC POWER PER AMP</u>		
1	LESS THAN OR EQUAL TO 60 AMPS	BA-NE, WP 1.0, PG 1, LN 11F	\$16.57
2	GREATER THAN 60 AMPS	BA-NE, WP 1.0, PG 2, LN 11F	\$16.61

PHYSICAL COLLOCATION
BELL ATLANTIC - NEW ENGLAND
FCC - 11

DC POWER - LESS THAN OR EQUAL TO 60 AMPS

- WEIGHTED -

A ITEM	B SOURCE	C D E F G					H BA-NE
		BA-MA	BA-ME	BA-NH	BA-RI	BA-VT	
1 TOTAL WEIGHTED UNIT INVESTMENT	COST STUDY	\$514.83	\$95.23	\$99.09	\$80.42	\$47.05	\$836.61
2 DEPRECIATION	COST STUDY	\$31.10	\$6.02	\$6.36	\$4.85	\$2.84	\$51.16
3 COST OF CAPITAL	COST STUDY	\$30.82	\$5.54	\$5.66	\$4.82	\$2.78	\$49.62
4 INCOME TAX	COST STUDY	\$12.48	\$2.24	\$2.29	\$1.94	\$1.12	\$20.08
5 OTHER TAXES	COST STUDY	\$1.62	\$1.51	\$0.14	\$0.87	\$0.51	\$4.66
6 MAINTENANCE	COST STUDY	\$26.93	\$3.69	\$4.11	\$3.00	\$2.32	\$40.05
7 ADMINISTRATION	COST STUDY	\$21.83	\$3.22	\$3.45	\$2.94	\$1.77	\$33.22
8 ANNUAL DIRECT COST	SUM (LINE 2 THRU LINE 7)	\$124.78	\$22.23	\$22.02	\$18.42	\$11.34	\$198.79
9 MONTHLY COST	LINE 8 / 12	\$10.40	\$1.85	\$1.84	\$1.53	\$0.94	\$16.57
10 OVERHEAD LOADING FACTOR	WP 6.0, PG 1, LINE 25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
11 MONTHLY RATE	LINE 9 x LINE 10	\$10.40	\$1.85	\$1.84	\$1.53	\$0.94	\$16.57
12 DIRECT COST TO RATE	LINE 9 / LINE 11	1.00	1.00	1.00	1.00	1.00	1.00

PHYSICAL COLLOCATION
BELL ATLANTIC - NEW ENGLAND
FCC - 11

DC POWER - GREATER THAN 60 AMPS

- WEIGHTED -

A ITEM	B SOURCE	C D E F G					H BA-NE
		BA-MA	BA-ME	BA-NH	BA-RI	BA-VT	
1 TOTAL WEIGHTED UNIT INVESTMENT	COST STUDY	\$514.86	\$96.16	\$99.81	\$80.70	\$47.47	\$839.00
2 DEPRECIATION	COST STUDY	\$31.10	\$6.08	\$6.41	\$4.87	\$2.86	\$51.31
3 COST OF CAPITAL	COST STUDY	\$30.82	\$5.60	\$5.70	\$4.83	\$2.80	\$49.76
4 INCOME TAX	COST STUDY	\$12.48	\$2.27	\$2.31	\$1.95	\$1.13	\$20.14
5 OTHER TAXES	COST STUDY	\$1.62	\$1.53	\$0.14	\$0.88	\$0.52	\$4.68
6 MAINTENANCE	COST STUDY	\$26.93	\$3.73	\$4.14	\$3.01	\$2.34	\$40.15
7 ADMINISTRATION	COST STUDY	\$21.83	\$3.25	\$3.48	\$2.95	\$1.79	\$33.30
8 ANNUAL DIRECT COST	SUM (LINE 2 THRU LINE 7)	\$124.79	\$22.45	\$22.18	\$18.48	\$11.44	\$199.34
9 MONTHLY COST	LINE 8 / 12	\$10.40	\$1.87	\$1.85	\$1.54	\$0.95	\$16.61
10 OVERHEAD LOADING FACTOR	WP 6.0, PG 1, LINE 25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
11 MONTHLY RATE	LINE 9 x LINE 10	\$10.40	\$1.87	\$1.85	\$1.54	\$0.95	\$16.61
12 DIRECT COST TO RATE	LINE 9 / LINE 11	1.00	1.00	1.00	1.00	1.00	1.00

PHYSICAL COLLOCATION
Bell Atlantic - New England
FCC - 11

DC POWER - LESS THAN OR EQUAL TO 60 AMPS

	A	B	C	D	E	F	G	H	I
LINE NO.	ITEM	SOURCE	DEPRECIATION	COST OF CAPITAL	INCOME TAX	OTHER TAXES	MAINT.	ADMIN.	TOTAL
1	MASSACHUSETTS	WP 1.0, PG 1, LINES 2 THRU 7	\$48.74	\$48.31	\$19.56	\$2.53	\$42.22	\$34.22	\$195.58
2	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26C	0.638	0.638	0.638	0.638	0.638	0.638	0.638
3	BA-MA WEIGHTED COST	LINE 1 X LINE 2	\$31.10	\$30.82	\$12.48	\$1.62	\$26.93	\$21.83	\$124.78
4	MAINE	WP 2.0, PG 1, LINES 2 THRU 7	\$61.41	\$56.58	\$22.89	\$15.42	\$37.65	\$32.89	\$226.84
5	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26D	0.098	0.098	0.098	0.098	0.098	0.098	0.098
6	BA-ME WEIGHTED COST	LINE 4 X LINE 5	\$6.02	\$5.54	\$2.24	\$1.51	\$3.69	\$3.22	\$22.23
7	NEW HAMPSHIRE	WP 3.0, PG 1, LINES 2 THRU 7	\$54.84	\$48.80	\$19.76	\$1.24	\$35.42	\$29.78	\$189.84
8	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26E	0.116	0.116	0.116	0.116	0.116	0.116	0.116
9	BA-NH WEIGHTED COST	LINE 7 X LINE 8	\$6.36	\$5.66	\$2.29	\$0.14	\$4.11	\$3.45	\$22.02
10	RHODE ISLAND	WP 4.0, PG 1, LINES 2 THRU 7	\$49.50	\$49.15	\$19.84	\$8.92	\$30.61	\$29.95	\$187.95
11	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26F	0.098	0.098	0.098	0.098	0.098	0.098	0.098
12	BA-RI WEIGHTED COST	LINE 10 X LINE 11	\$4.85	\$4.82	\$1.94	\$0.87	\$3.00	\$2.94	\$18.42
13	VERMONT	WP 5.0, PG 1, LINES 2 THRU 7	\$57.94	\$56.65	\$22.89	\$10.43	\$47.35	\$36.12	\$231.38
14	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26G	0.049	0.049	0.049	0.049	0.049	0.049	0.049
15	BA-VT WEIGHTED COST	LINE 13 X LINE 14	\$2.84	\$2.78	\$1.12	\$0.51	\$2.32	\$1.77	\$11.34

PHYSICAL COLLOCATION
Bell Atlantic - New England
FCC - 11

DC POWER - GREATER THAN 60 AMPS

<u>LINE NO.</u>	<u>ITEM</u>	<u>SOURCE</u>	<u>DEPRECIATION</u>	<u>COST OF CAPITAL</u>	<u>INCOME TAX</u>	<u>OTHER TAXES</u>	<u>MAINT.</u>	<u>ADMIN.</u>	<u>TOTAL</u>
1	MASSACHUSETTS	WP 1.1, PG 1, LINES 2 THRU 7	\$48.74	\$48.31	\$19.56	\$2.53	\$42.22	\$34.22	\$195.59
2	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26C	0.638	0.638	0.638	0.638	0.638	0.638	0.638
3	BA-MA WEIGHTED COST	LINE 1 X LINE 2	\$31.10	\$30.82	\$12.48	\$1.62	\$26.93	\$21.83	\$124.79
4	MAINE	WP 2.1, PG 1, LINES 2 THRU 7	\$62.01	\$57.13	\$23.12	\$15.57	\$38.02	\$33.21	\$142.26
5	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26D	0.098	0.098	0.098	0.098	0.098	0.098	0.098
6	BA-ME WEIGHTED COST	LINE 4 X LINE 5	\$6.08	\$5.60	\$2.27	\$1.53	\$3.73	\$3.25	\$22.45
7	NEW HAMPSHIRE	WP 3.1, PG 1, LINES 2 THRU 7	\$55.24	\$49.16	\$19.91	\$1.25	\$35.68	\$30.00	\$191.23
8	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26E	0.116	0.116	0.116	0.116	0.116	0.116	0.116
9	BA-NH WEIGHTED COST	LINE 7 X LINE 8	\$6.41	\$5.70	\$2.31	\$0.14	\$4.14	\$3.48	\$22.18
10	RHODE ISLAND	WP 4.1, PG 1, LINES 2 THRU 7	\$49.67	\$49.32	\$19.91	\$8.95	\$30.71	\$30.05	\$188.61
11	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26F	0.098	0.098	0.098	0.098	0.098	0.098	0.098
12	BA-RI WEIGHTED COST	LINE 10 X LINE 11	\$4.87	\$4.83	\$1.95	\$0.88	\$3.01	\$2.95	\$18.48
13	VERMONT	WP 5.1, PG 1, LINES 2 THRU 7	\$58.46	\$57.16	\$23.10	\$10.52	\$47.78	\$36.44	\$233.46
14	BA-NE WEIGHTING	WP 6.0, PG 1, LINE 26G	0.049	0.049	0.049	0.049	0.049	0.049	0.049
15	BA-VT WEIGHTED COST	LINE 13 X LINE 14	\$2.86	\$2.80	\$1.13	\$0.52	\$2.34	\$1.79	\$11.44

**PHYSICAL COLLOCATION
Bell Atlantic - Massachusetts
FCC - 11**

DC POWER - LESS THAN OR EQUAL TO 60 AMPS

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
<u>ITEM</u>	<u>SOURCE</u>	<u>LAND</u>	<u>BLDG</u>	<u>SWITCH EQPT.</u>	<u>TOTAL INVEST</u>
1 TOTAL POWER PLANT UNIT INVESTMENT	WP 1.0, PG 3, LINE 46	-	-	\$240.50	\$240.50
2 EF&I FACTOR - FRC 377C	WP 6.0, PG 1, LINE 24C	-	-	2.7852	2.7852
3 INSTALLED INVESTMENT (NRC)	LINE 1 x LINE 2	-	-	\$669.83	\$669.83
4 UTILIZATION FACTOR	ENGINEERING	-	-	1.0000	1.0000
5 TOTAL IN-PLACE INVESTMENT	LINE 3 x LINE 4	-	-	\$669.83	\$669.83
6 LAND INVESTMENT FACTOR	WP 6.0, PG 1, LINE 22C	0.0054	-	-	0.0054
7 BUILDING INVESTMENT FACTOR	WP 6.0, PG 1, LINE 23C	-	0.1993	-	0.1993
8 LAND INVESTMENT	LINE 5E x LINE 6C	\$3.62	-	-	\$3.62
9 BUILDING INVESTMENT	LINE 5E x LINE 7D	-	\$133.50	-	\$133.50
10 TOTAL UNIT INVESTMENT	LINE 5E + LINE 8C + LINE 9D	\$3.62	\$133.50	\$669.83	\$806.95
11 WEIGHTED UNIT INVESTMENT	LINE 10 x WP 6.0, PG 1, LINE 26C	\$2.31	\$85.17	\$427.35	\$514.83

**PHYSICAL COLLOCATION
Bell Atlantic - Massachusetts
FCC - 11**

DC POWER - LESS THAN OR EQUAL TO 60 AMPS

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
<u>ITEM</u>	<u>SOURCE</u>	<u>LAND</u>	<u>BLDG</u>	<u>CKT EQPT.</u>	<u>TOTAL INVEST</u>
1 TOTAL UNIT INVESTMENT	WP 1.0, PG 2 LINE 10	\$3.62	\$133.50	\$669.83	\$806.95
2 DEPRECIATION	LINE 1 X WP 6.0 - ACF FACTOR	\$0.00	\$3.39	\$45.35	\$48.74
3 COST OF CAPITAL	LINE 1 X WP 6.0 - ACF FACTOR	\$0.41	\$11.19	\$36.71	\$48.31
4 INCOME TAX	LINE 1 X WP 6.0 - ACF FACTOR	\$0.17	\$4.53	\$14.87	\$19.56
5 OTHER TAXES	LINE 1 X WP 6.0 - ACF FACTOR	\$0.06	\$2.34	\$0.13	\$2.53
6 MAINTENANCE	LINE 1 X WP 6.0 - ACF FACTOR	\$0.13	\$4.65	\$37.44	\$42.22
7 ADMINISTRATION	LINE 1 X WP 6.0 - ACF FACTOR	<u>\$0.15</u>	<u>\$5.67</u>	<u>\$28.40</u>	<u>\$34.22</u>
8 ANNUAL DIRECT COST	SUM (LINE 2 THRU LINE 7)	\$0.92	\$31.75	\$162.90	\$195.58
9 WEIGHTED UNIT INVESTMENT	LINE 8 x WP 6.0, PG 1, LINE 26C	\$0.59	\$20.26	\$103.93	\$124.78

PHYSICAL COLLOCATION
Bell Atlantic - Massachusetts
FCC NO. 11

DC POWER COST DEVELOPMENT - LESS THAN OR EQUAL TO 60 AMPS

<u>LINE NO.</u>	<u>A</u> <u>ITEM</u>	<u>B</u> <u>SOURCE</u>	<u>C</u> <u>METRO</u>	<u>D</u> <u>URBAN</u>	<u>E</u> <u>SUBURBAN</u>	<u>F</u> <u>RURAL</u>
	<u>Microprocessor Plant (BUSS BAR)</u>					
1	AMP	Engineering	5,000	2,600	2,600	1,200
2	Material	Engineering	\$22,500	\$17,000	\$12,000	\$9,000
3	Unit Investment Per AMP	(L2 / L1)	\$4.50	\$6.54	\$4.62	\$7.50
4	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
5	Statewide Unit Investment Per AMP	\$5.45 WP 1.0, PG 3, LINE 10	\$0.35	\$2.30	\$2.36	\$0.44
	<u>Rectifiers</u>					
6	Quantity	Engineering	5	5	6	5
7	AMPS per unit	Engineering	400	200	200	200
8	Tot. AMPS	(L6 * L7)	2,000	1,000	1,200	1,000
9	Utilization	(L6-1) / L6)	80.00%	80.00%	83.33%	80.00%
10	Material	Engineering	\$43,500	\$30,000	\$35,700	\$30,000
11	Total Investment	(L10 / L9)	\$54,375	\$37,500	\$42,840	\$37,500
12	Unit Investment Per AMP	(L11 / L8)	\$27.19	\$37.50	\$35.70	\$37.50
13	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
14	Statewide Unit Investment Per AMP	\$35.78	\$2.10	\$13.19	\$18.29	\$2.20
	<u>Batteries</u>					
15	Strings	Engineering	3	3	4	3
16	AMPS per String	Engineering	688	310	310	310
17	Tot. AMPS	(L15 * L16)	2,064	930	1,240	930
18	Total Investment	Engineering	\$98,500	\$40,500	\$52,900	\$40,500
19	Unit Investment Per AMP	(L18 / L17)	\$47.72	\$43.55	\$42.66	\$43.55
20	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
21	Statewide Unit Investment Per AMP	\$43.42	\$3.68	\$15.32	\$21.86	\$2.56
	<u>Automatic Breaker</u>					
22	AMP per Breaker	Engineering	1,600	1,200	800	400
23	Total Investment	Engineering	\$50,000	\$40,000	\$35,000	\$20,000
24	Unit Investment Per AMP	(L23 / L22)	\$31.25	\$33.33	\$43.75	\$50.00
25	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
26	Statewide Unit Investment Per AMP	\$39.49	\$2.41	\$11.73	\$22.41	\$2.94
	<u>Power Distribution Service Cabinet</u>					
27	Amps	Engineering	800	800	400	400
28	Material	Engineering	\$7,000	\$4,000	\$3,700	\$2,700
29	Unit Investment Per AMP	(L28 / L27)	\$8.75	\$5.00	\$9.25	\$6.75
30	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
31	Statewide Unit Investment Per AMP	\$7.57	\$0.68	\$1.76	\$4.74	\$0.40
	<u>Emergency engine/turbine (auto start)</u>					
32	AMP Capacity	Engineering	1,505	1,216	868	278

33	Utilization	Engineering	70%	70%	70%	70%
34	Utilized AMPS	(L32 * L33)	1,054	851	608	195
35	Emerg. Engine Invest.	Engineering	\$75,600	\$38,200	\$34,000	\$21,500
36	Conduit/Emer Lights	Engineering	\$35,000	\$30,000	\$25,000	\$20,000
37	Total Investment	(L35 + L36)	\$110,600	\$68,200	\$59,000	\$41,500
38	Unit Investment Per AMP	(L37 / L34)	\$104.98	\$80.12	\$97.10	\$213.26
39	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
40	Statewide Unit Investment Per AMP		\$98.56	\$8.10	\$28.18	\$49.75
	Battery Distribution Fuse Bay					
41	AMP Capacity	Engineering	800	800	800	800
42	Material	Engineering	\$8,181	\$8,181	\$8,181	\$8,181
43	Unit Investment Per AMP	(L42 / L41)	\$10.23	\$10.23	\$10.23	\$10.23
44	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
45	Statewide Unit Investment Per AMP		\$10.23	\$0.79	\$3.60	\$5.24
	Total Unit Investment - (Less than or					
46	Equal to 60 AMP's) - Sum Lines		\$240.50			
	(5C+14C+21C+26C+31C+40C+45C)					

**PHYSICAL COLLOCATION
Bell Atlantic - Massachusetts
FCC - 11**

DC POWER - GREATER THAN 60 AMPS

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
<u>ITEM</u>	<u>SOURCE</u>	<u>LAND</u>	<u>BLDG</u>	<u>SWITCH EQPT.</u>	<u>TOTAL INVEST</u>
1 TOTAL POWER PLANT UNIT INVESTMENT	WP 1.1, PG 3, LINE 46	-	-	\$240.51	\$240.51
2 EF&I FACTOR - FRC 377C	WP 6.0, PG 1, LINE 24C	-	-	2.7852	2.7852
3 INSTALLED INVESTMENT (NRC)	LINE 1 x LINE 2	-	-	\$669.87	\$669.87
4 UTILIZATION FACTOR	ENGINEERING	-	-	1.0000	1.0000
5 TOTAL IN-PLACE INVESTMENT	LINE 3 x LINE 4	-	-	\$669.87	\$669.87
6 LAND INVESTMENT FACTOR	WP 6.0, PG 1, LINE 22C	0.0054	-	-	0.0054
7 BUILDING INVESTMENT FACTOR	WP 6.0, PG 1, LINE 23C	-	0.1993	-	0.1993
8 LAND INVESTMENT	LINE 5E x LINE 6C	\$3.62	-	-	\$3.62
9 BUILDING INVESTMENT	LINE 5E x LINE 7D	-	\$133.50	-	\$133.50
10 TOTAL UNIT INVESTMENT	LINE 5E + LINE 8C + LINE 9D	\$3.62	\$133.50	\$669.87	\$806.99
11 WEIGHTED UNIT INVESTMENT	LINE 10 x WP 6.0, PG 1, LINE 26C	\$2.31	\$85.18	\$427.38	\$514.86

PHYSICAL COLLOCATION
Bell Atlantic - Massachusetts
FCC - 11

DC POWER - GREATER THAN 60 AMPS

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
<u>ITEM</u>	<u>SOURCE</u>	<u>LAND</u>	<u>BLDG</u>	<u>CKT EQPT.</u>	<u>TOTAL INVEST</u>
1 TOTAL UNIT INVESTMENT	WP 1.1, PG 2 LINE 10	\$3.62	\$133.50	\$669.87	\$806.99
2 DEPRECIATION	LINE 1 X WP 6.0 - ACF FACTOR	\$0.00	\$3.39	\$45.35	\$48.74
3 COST OF CAPITAL	LINE 1 X WP 6.0 - ACF FACTOR	\$0.41	\$11.19	\$36.71	\$48.31
4 INCOME TAX	LINE 1 X WP 6.0 - ACF FACTOR	\$0.17	\$4.53	\$14.87	\$19.56
5 OTHER TAXES	LINE 1 X WP 6.0 - ACF FACTOR	\$0.06	\$2.34	\$0.13	\$2.53
6 MAINTENANCE	LINE 1 X WP 6.0 - ACF FACTOR	\$0.13	\$4.65	\$37.45	\$42.22
7 ADMINISTRATION	LINE 1 X WP 6.0 - ACF FACTOR	<u>\$0.15</u>	<u>\$5.67</u>	<u>\$28.40</u>	<u>\$34.22</u>
8 ANNUAL DIRECT COST	SUM (LINE 2 THRU LINE 7)	\$0.92	\$31.75	\$162.91	\$195.59
9 WEIGHTED UNIT INVESTMENT	LINE 8 x WP 6.0, PG 1, LINE 26C	\$0.59	\$20.26	\$103.94	\$124.79

PHYSICAL COLLOCATION
Bell Atlantic - Massachusetts
FCC NO. 11

DC POWER COST DEVELOPMENT - GREATER THAN 60 AMPS

LINE NO.	A ITEM	B SOURCE	C METRO	D URBAN	E SUBURBAN	F RURAL
	<u>Microprocessor Plant (BUSS BAR)</u>					
1	AMP	Engineering	5,000	2,600	2,600	1,200
2	Material	Engineering	\$22,500	\$17,000	\$12,000	\$9,000
3	Unit Investment Per AMP	(L2 / L1)	\$4.50	\$6.54	\$4.62	\$7.50
4	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
5	Statewide Unit Investment Per AMP	\$5.45	\$0.35	\$2.30	\$2.36	\$0.44
	<u>Rectifiers</u>					
6	Quantity	Engineering	5	5	6	5
7	AMPS per unit	Engineering	400	200	200	200
8	Tot. AMPS	(L6 * L7)	2,000	1,000	1,200	1,000
9	Utilization	(L6-1) / L6)	80.00%	80.00%	83.33%	80.00%
10	Material	Engineering	\$43,500	\$30,000	\$35,700	\$30,000
11	Total Investment	(L10 / L9)	\$54,375	\$37,500	\$42,840	\$37,500
12	Unit Investment Per AMP	(L11 / L8)	\$27.19	\$37.50	\$35.70	\$37.50
13	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
14	Statewide Unit Investment Per AMP	\$35.78	\$2.10	\$13.19	\$18.29	\$2.20
	<u>Batteries</u>					
15	Strings	Engineering	3	3	4	3
16	AMPS per String	Engineering	688	310	310	310
17	Tot. AMPS	(L15 * L16)	2,064	930	1,240	930
18	Total Investment	Engineering	\$98,500	\$40,500	\$52,900	\$40,500
19	Unit Investment Per AMP	(L18 / L17)	\$47.72	\$43.55	\$42.66	\$43.55
20	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
21	Statewide Unit Investment Per AMP	\$43.42	\$3.68	\$15.32	\$21.86	\$2.56
	<u>Automatic Breaker</u>					
22	AMP per Breaker	Engineering	1,600	1,200	800	400
23	Total Investment	Engineering	\$50,000	\$40,000	\$35,000	\$20,000
24	Unit Investment Per AMP	(L23 / L22)	\$31.25	\$33.33	\$43.75	\$50.00
25	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
26	Statewide Unit Investment Per AMP	\$39.49	\$2.41	\$11.73	\$22.41	\$2.94
	<u>Power Distribution Service Cabinet</u>					
27	Amps	Engineering	800	800	400	400
28	Material	Engineering	\$7,000	\$4,000	\$3,700	\$2,700
29	Unit Investment Per AMP	(L28 / L27)	\$8.75	\$5.00	\$9.25	\$6.75
30	Statewide Weighting	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
31	Statewide Unit Investment Per AMP	\$7.57	\$0.68	\$1.76	\$4.74	\$0.40
	<u>Emergency engine/turbine (auto start)</u>					
32	AMP Capacity	Engineering	1,505	1,216	868	278

33	Utilization	Engineering	70%	70%	70%	70%
34	Utilized AMPS	(L32 * L33)	1,054	851	608	195
35	Emerg. Engine Invest.	Engineering	\$75,600	\$38,200	\$34,000	\$21,500
36	Conduit/Emer Lights	Engineering	\$35,000	\$30,000	\$25,000	\$20,000
37	Total Investment	(L35 + L36)	\$110,600	\$68,200	\$59,000	\$41,500
38	Unit Investment Per AMP	(L37 / L34)	\$104.98	\$80.12	\$97.10	\$213.26
39	<u>Statewide Weighting</u>	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
40	Statewide Unit Investment Per AMP		\$98.56	\$8.10	\$28.18	\$49.75
	<u>Power Plant Distribution Bay</u>					
41	AMP Capacity	Engineering	2,600	1,200	1,200	300
42	Material	Engineering	\$20,000	\$15,000	\$10,000	\$5,000
43	Unit Investment Per AMP	(L42 / L41)	\$7.69	\$12.50	\$8.33	\$16.67
44	<u>Statewide Weighting</u>	WP 6.0, Pg 1, Lns 27C-30C	0.0772	0.3518	0.5123	0.0588
45	Statewide Unit Investment Per AMP		\$10.24	\$0.59	\$4.40	\$4.27
46	<u>Total Unit Investment - (Less than or</u>					
	Equal to 60 AMP's) - Sum Lines		\$240.51			
	(5C+14C+21C+26C+31C+40C+45C)					

**PHYSICAL COLLOCATION
Bell Atlantic - Maine
FCC - 11**

DC POWER - LESS THAN OR EQUAL TO 60 AMPS

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
<u>ITEM</u>	<u>SOURCE</u>	<u>LAND</u>	<u>BLDG</u>	<u>SWITCH EQPT.</u>	<u>TOTAL INVEST</u>
1 TOTAL POWER PLANT UNIT INVESTMENT	WP 2.0, PG 3, LINE 46	-	-	\$309.69	\$309.69
2 EF&I FACTOR - FRC 377C	WP 6.0, PG 1, LINE 24D	-	-	2.7852	2.7852
3 INSTALLED INVESTMENT (NRC)	LINE 1 x LINE 2	-	-	\$862.54	\$862.54
4 UTILIZATION FACTOR	ENGINEERING	-	-	1.0000	1.0000
5 TOTAL IN-PLACE INVESTMENT	LINE 3 x LINE 4	-	-	\$862.54	\$862.54
6 LAND INVESTMENT FACTOR	WP 6.0, PG 1, LINE 22D	0.0022	-	-	0.0022
7 BUILDING INVESTMENT FACTOR	WP 6.0, PG 1, LINE 23D	-	0.1244	-	0.1244
8 LAND INVESTMENT	LINE 5E x LINE 6C	\$1.90	-	-	\$1.90
9 BUILDING INVESTMENT	LINE 5E x LINE 7D	-	\$107.30	-	\$107.30
10 TOTAL UNIT INVESTMENT	LINE 5E + LINE 8C + LINE 9D	\$1.90	\$107.30	\$862.54	\$971.74
11 WEIGHTED UNIT INVESTMENT	LINE 10 x WP 6.0, PG 1, LINE 26D	\$0.19	\$10.52	\$84.53	\$95.23